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FEDERAL - STATE - PRIVATE
COOPERATIVE SNOW SURVEYS

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MAY 9 - 1966

CURRENT SERIAL RECORDS

WATER SUPPLY OUTLOOK
and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS
for
COLORADO and NEW MEXICO

UNITED STATES DEPARTMENT of AGRICULTURE--SOIL CONSERVATION SERVICE
and
COLORADO AGRICULTURAL EXPERIMENT STATION
STATE ENGINEER of COLORADO
and STATE ENGINEER of NEW MEXICO

Data included in this report were obtained by the agencies named above in cooperation with the Bureau of Reclamation, U.S. Forest Service, National Park Service, Corps of Engineers and other Federal, State, and private organizations.

||||||| AS OF |||||
APR. 1, 1966

UNITED STATES DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE

To Recipients of Water Supply Outlook Reports:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season as they affect runoff will add to be an effective average. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1400 snow courses in Western United States and in the Columbia Basin in British Columbia. In the near future, it is anticipated that automatic snow water equivalent sensing devices along with radio telemetry will provide a continuous record of snow water equivalent at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data or reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

Listed below are water supply outlook reports based on Federal-State-Private Cooperative snow surveys. Those published by the Soil Conservation Service may be obtained from Soil Conservation Service, Room 507, Federal Building, 701 N. W. Glisan, Portland, Oregon 97209.

PUBLISHED BY SOIL CONSERVATION SERVICE

<u>REPORTS</u>	<u>ISSUED</u>	<u>LOCATION</u>	<u>COOPERATING WITH</u>
RIVER BASINS			
WESTERN UNITED STATES	MONTHLY (FEB.-MAY)	PORTLAND, OREGON	ALL COOPERATORS
BASIC DATA SUMMARY	OCTOBER 1	PORTLAND, OREGON	ALL COOPERATORS
STATES			
ALASKA	MONTHLY (MAR.-MAY)	PALMER, ALASKA	ALASKA S.C.D.
ARIZONA	SEMI-MONTHLY (JAN.15 - APR.1)	PHOENIX, ARIZONA	SALT R. VALLEY WATER USERS ASSOC. ARIZ. AGR. EXP. STATION
GOLORADO AND NEW MEXICO	MONTHLY (FEB.-MAY)	FORT COLLINS, COLORADO	COLO. STATE UNIVERSITY COLO. STATE ENGINEER N. MEX. STATE ENGINEER
IDAHO	MONTHLY (JAN.-JUNE)	BOISE, IDAHO	IDAHO STATE RECLAMATION ENGINEER
MONTANA	MONTHLY (JAN.-JUNE)	BOZEMAN, MONTANA	MONT. AGR. EXP. STATION
NEVADA	MONTHLY (JAN.-MAY)	RENO, NEVADA	NEVADA DEPT. OF CONSERVATION AND NATURAL RESOURCES - DIVISION OF WATER RESOURCES
OREGON	MONTHLY (JAN.-JUNE)	PORTLAND, OREGON	OREG. STATE UNIVERSITY OREGON STATE ENGINEER
UTAH	MONTHLY (JAN.-JUNE)	SALT LAKE CITY, UTAH	UTAH STATE ENGINEER
WASHINGTON	MONTHLY (FEB.-JUNE)	SPOKANE, WASHINGTON	WN. STATE DEPT. OF CONSERVATION
WYOMING	MONTHLY (FEB.-JUNE)	CASPER, WYOMING	WYOMING STATE ENGINEER

PUBLISHED BY OTHER AGENCIES

<u>REPORTS</u>	<u>ISSUED</u>	<u>AGENCY</u>
BRITISH COLUMBIA	MONTHLY (FEB.-JUNE)	WATER RESOURCES SERVICE, DEPT. OF LANDS, FOREST AND WATER RESOURCES, PARLIAMENT BLDG., VICTORIA, B.C., CANADA
CALIFORNIA	MONTHLY (FEB.-MAY)	CALIF. DEPT. OF WATER RESOURCES, P.O. BOX 388, SACRAMENTO, CALIF.

**FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND WATER SUPPLY FORECASTS
for
COLORADO RIVER, PLATTE RIVER
ARKANSAS RIVER AND RIO GRANDE DRAINAGE BASINS
issued**

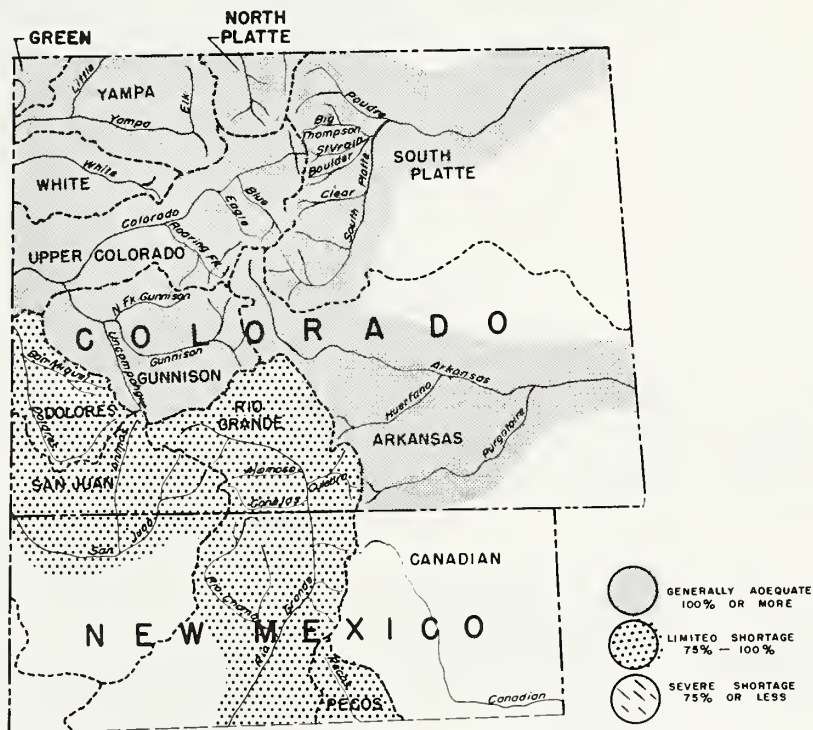
April 1, 1966

Report Prepared By
Jack N. Washichek, Snow Survey Supervisor
and
Don W. McAndrew, Assistant Snow Survey Supervisor
Fort Collins, Colorado

United States Department of Agriculture
Soil Conservation Service
and
Colorado Agricultural Experiment Station
Fort Collins, Colorado

State Engineer of Colorado
Denver, Colorado
and
State Engineer of New Mexico
Santa Fe, New Mexico

WATER SUPPLY OUTLOOK



THE MAP ON THIS PAGE INDICATES THE MOST PROBABLE WATER SUPPLY AS OF THE DATE OF THIS REPORT. ESTIMATES ASSUME AVERAGE CONDITIONS OF SNOW FALL, PRECIPITATION AND OTHER FACTORS FROM THIS DATE TO THE END OF THE FORECAST PERIOD. AS THE SEASON PROGRESSES ACCURACY OF ESTIMATES IMPROVE. IN ADDITION TO EXPECTED STREAMFLOW, RESERVOIR STORAGE, SOIL MOISTURE IN IRRIGATED AREAS, AND OTHER FACTORS ARE CONSIDERED IN ESTIMATING WATER SUPPLY. ESTIMATES APPLY TO IRRIGATED AREAS ALONG THE MAIN STREAMS AND MAY NOT INDICATE CONDITIONS ON SMALL TRIBUTARIES.

WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO

as of

April 1, 1966



COLORADO - The month of March had almost catastrophic effects upon Colorado's mountain snow pack. There was practically no snowfall over the entire state during the month of March. Temperatures were above seasonal average.

Normally during March the snow pack should increase, but most of the snow course readings actually showed a decrease for the past month. This situation left many snow courses at a minimum of record.

The hardest hit areas are the South Platte and Arkansas Basins. Last years reservoir storage will indeed be a great help for the water users in these areas.



NEW MEXICO - Even though March was an extremely poor month as far as snowfall is concerned, the Rio Grande and its' main tributaries should still flow normal or near normal. The snow pack in the headwaters of the Rio Grande decreased from 130% to just average. The big snows that were received during December and January really prove to be the difference between the expected near normal year, or one of drought like nature.

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WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

WATERSHED I

SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Fort Collins, Big Thompson, Longmont, Boulder Valley, Jefferson, Teller-Park, Douglas County, Morgan, Kiowa, West Arapahoe, West Adams, East Adams, Platte Valley, Southeast Weld, and West Greeley Soil Conservation Districts.

WATERSHED II

ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Horse-Rush Creek, Central Colorado, Turkey Creek, Pueblo, Bessemer, Olney Boone, Cheyenne, Upper Huerfano, Stonewall, Spanish Peaks, Purgatoire, Branson Trinchera, Western Baca County, Southeastern Baca County, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, West Otero, East Otero, and Big Sandy Soil Conservation Districts.

WATERSHED III

RIO GRANDE WATERSHED (COLORADO)

Describes water supply conditions in Rio Grande, Center, Mosca Hooper, Mt. Blanca, Sanches, and Culebra Soil Conservation Districts.

WATERSHED IV

RIO GRANDE WATERSHED (NEW MEXICO)

Describes water supply conditions in Lower Cebolla, Abiquiu-Vallecitos, Eastern Taos, Lindrieth, Coyote-Canones, Espanola Valley, Pojoaque, Jemez, Santa Fe-Sandoval, Tijeras, Cuba, and Englewood Soil Conservation Districts.

WATERSHED V

DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

Describes water supply conditions in San Miguel Basin, Dove Creek, Dolores, Mancos, LaPlata, Pine River, San Juan, and Glade Park Soil Conservation Districts.

WATERSHED VI

GUNNISON RIVER WATERSHED

Describes water supply conditions in Delta, Gunnison, Cimarron, Shavano, and Uncompahgre Soil Conservation Districts.

WATERSHED VII

COLORADO RIVER WATERSHED

Describes water supply conditions in DeBeque, Lower Grand Valley, Bookcliff, Eagle County, Middle Park, Glade Park, Upper Grand Valley, Plateau Valley, South Side, and Mt. Sopris Soil Conservation Districts.

WATERSHED VIII

YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED

Describes water supply conditions in Yampa, Moffat, West Routt, East Routt, North Park, Upper White River, Lower White River, and Douglas Creek Soil Conservation Districts.

WATERSHED IX

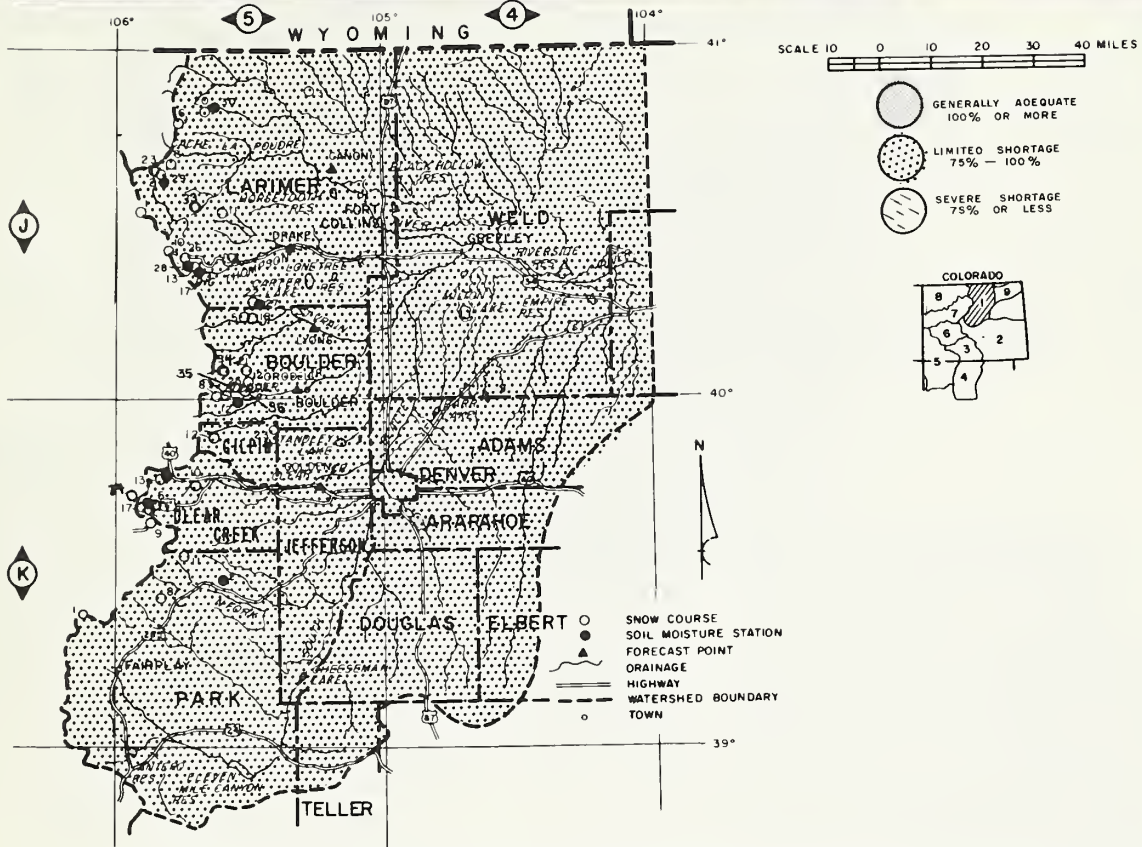
LOWER SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Sedgwick, South Platte, Haxton Peetz, Padroni, Morgan, Rock Creek and Yuma Soil Conservation Districts.

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
SOUTH PLATTE RIVER WATERSHED IN COLORADO
as of

April 1, 1966

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



Unless the mountains of the South Platte receive much above average snowfall during April, the summer runoff could be near the lowest of record. The years of 1954 and 1963 were extremely low and the current forecasts are near these flows.

March produced practically no snow in our high mountains. This coupled with above seasonal temperatures has reduced the mountain snow pack to new lows for this time of year. Current snow pack is only 43% of the 1948-62 average.

Carry-over storage is 142% of normal and will be of great assistance this summer. Water users dependent upon river run for water will be extremely short.

Mountain soils are slightly wetter than usual, but valley soils are reported as dry.

Current forecasts were dropped as much as 30% this month. Boulder Creek is forecasted at 65% for the high of the area while the St. Vrain is forecasted at 46% of normal for the low.

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

E. A. Nicholson, Area Conservationist,
Littleton, Colorado

SNOW

SNOW		CURRENT INFORMATION			PAST RECORD	
SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
					LAST YEAR	AVERAGE 1938-62
South Platte River & Tributaries						
Baltimore	5K23	4/1	0	0.0	9.0	- -
Berthoud Falls	5K13	4/1	21	5.6	20.0	14.5*
Big South	5J3	4/2	0	0.0	4.1	2.9
Boulder Falls	5J25	3/30	20	6.0	20.3	15.1*
Cameron Pass	5J1	3/28	55	21.1	27.7	27.4
Chambers Lake	5J2	4/2	6	1.7	15.4	9.7
Copeland Lake	5J18	3/29	2	0.4	10.0	5.3*
Deadman Hill	5J6	3/28	40	8.0	17.5	17.5
Deer Ridge	5J17	3/30	3	1.0	8.6	5.9*
Empire	5K10	4/1	15	2.6	11.1	8.1*
Geneva Park	5K11	3/31	1	0.5	8.5	4.1*
Grizzly Peak (B)	5K9	3/31	39	10.5	27.4	19.2
Hidden Valley	5J13	3/39	23	6.5	13.8	12.7
Hoosier Pass	6K1	3/30	25	5.3	20.4	14.2
Hour Glass Lake	5J11	3/30	11	2.7	10.2	8.6
Jefferson Creek	5K8	3/31	15	3.0	13.8	10.4*
Lake Irene (B)	5J10	3/28	46	10.9	27.1	23.7
Long's Peak	5J22	4/3	23	5.5	17.8	12.5*
Lost Lake	5J23	4/2	14	4.6	15.1	13.0
Loveland Lift No. 1	5K24	3/31	42	15.7	32.9	- -
Loveland Pass	5K5	3/31	23	6.3	19.9	16.7
Pine Creek	5J31	3/28	1	0.2	3.3	- -
Red Feather	5J10	3/28	11	3.1	7.5	8.8*
Two Mile	5J26	3/30	32	9.5	18.0	16.4*
University Camp	5J8	3/30	27	9.9	27.7	24.4
Ward	5J21	3/29	6	2.9	10.1	7.2*
Wild Basin	5J5	3/29	22	5.8	17.2	14.7

RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1948-62
Antero	33.0	15.9	0	13.4
Barr Lake	32.2	28.0	12.6	22.3
Black Hollow	8.0	4.0	2.9	3.2
Boyd Lake	58.0	41.2	26.6	18.1
Cache La Poudre	9.5	8.3	7.9	7.0
Carter Lake	108.9	107.7	93.8	74.2
Chambers Lake	8.8	6.4	4.0	2.5
Cheeseman	79.0	39.2	24.2	52.1
Cobb Lake	34.3	7.4	5.5	9.5
Eleven Mile	81.9	89.6	27.7	74.2
Fossil Creek	11.6	10.2	6.4	6.6
Gross	43.1	29.5	18.3	- -
Halligan	6.4	6.4	3.2	3.4
Horsetooth	143.5	112.9	94.7	77.7
Lake Loveland	13.6	8.4	8.5	6.3
Lone Tree	9.2	7.9	0.9	6.5
Mariano	5.4	5.6	5.3	3.2
Marshall	10.3	6.7	1.1	3.1
Marston	18.9	16.4	15.4	14.6
Milton	24.4	16.4	1.1	11.7
Standly	18.5	19.9	7.9	11.4
Terry Lake	8.2	5.9	3.9	4.8
Union	12.7	12.7	6.4	7.8
Windsor	18.6	13.0	2.8	10.3

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alpine Camp	3/23	6.9	3.6	3.1	3.5
Beaver Dam	3/23	7.3	2.8	3.1	3.4
Clear Creek	3/31	9.5	5.4	4.8	5.3
Feather	3/7	10.1	4.0	3.9	4.1
Guard Station	4/3	6.9	3.9	2.9	3.5
Hoop Creek	3/28	4.9	3.4	2.6	2.4
Hoosier Pass	3/30	7.8	4.4	NS	4.2
Kenosha Pass	3/31	4.4	2.3	1.9	1.9
Laramie Road	4/2	12.4	8.7	6.8	6.6
Two Mile	3/23	9.1	4.1	4.6	5.3

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	APRIL THROUGH SEPTEMBER		AVERAGE 1948-62
	FORECAST	THIS YEAR	
	APRIL - SEPT.	% AVERAGE	
Big Thompson at Drake (2)	60	55	110
Boulder at Orodell	35	65	54
Cache La Poudre at Canon Mouth (1)	120	49	246
Clear Creek at Golden (3)	77	57	134
Saint Vrain at Lyons	37	46	80

NOTE: * - 1948-62 (adjusted averages)
 NS - NO SURVEY
 (A) - AIR OBSERVED
 (B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and
 Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Fort Collins, Colorado

- (1) Observed flow minus diversions from Michigan, Colorado and Laramie rivers, plus diversions for irrigation and municipal use above station.
- (2) Observed flow plus by-pass to power plants.
- (3) Observed flow minus diversions through Jones Pass.

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DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
 Colorado State University
 Fort Collins, Colorado

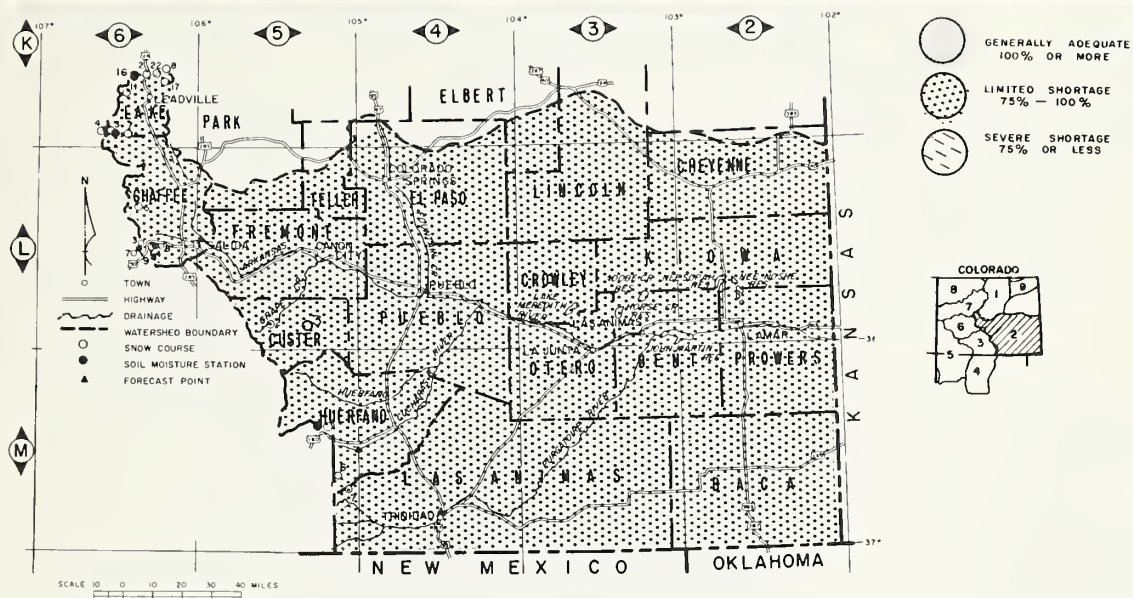
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WATERSHED II

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
ARKANSAS RIVER WATERSHED IN COLORADO
as of
April 1, 1966

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



The Arkansas River may flow less than any time in the last 15 years unless April snowfall is much above normal. Forecasts were dropped 50% due to the lack of snowfall during the month of March. Monarch Pass has far less snow than any time in recorded history. The snow pack over the entire basin is only 47% of the 1948-62 average, while some select snow courses are only 20 to 25% of normal. The month was one of high temperatures and no snow. Some of the lower courses are bare at this time. Never before has this happened.

The one bright feature in the basin is the excellent carry-over storage. Current storage is 338% of the 15 year average. This will help alleviate some of the shortage.

Valley soils are reported in relatively good condition.

Forecasts on the Arkansas River are for only 46% of the 15 year normal. The Cucharas and Purgatoire should flow considerably better.

“THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY”

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

Will D. McCorkle, Area Conservationist,
La Junta, Colorado

SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
					LAST YEAR	AVERAGE 1948-62
Arkansas River						
Bigelow Divide	5L3	3/30	8	2.3	8.0	- -
Blue Lakes	5M6	3/28	0	0.0	5.4	- -
Bourbon	5M5	3/31	10	3.2	9.9	7.8*
Cooper Hill	6K23	3/27	33	6.5	12.6	- -
Cucharas Pass	5M7	3/28	10	3.4	9.4	- -
East Fork	6K17	3/31	15	5.3	13.8	10.7*
Four Mile Park	6K7	3/30	3	1.0	15.6	4.9
Fremont Pass	6K8	3/31	35	9.7	25.6	17.7
Garfield	6L8	3/30	18	6.1	31.1	- -
LaVeta Pass	(8) 5M1	3/28	18	5.6	13.4	8.3
Monarch Pass	6L4	3/30	27	7.7	24.5	19.6
St. Elmo	6L5	NS			19.8	12.6*
Tennessee Pass	6K2	3/30	30	6.0	16.5	10.9
Tomichi	6L7	3/30	20	6.9	20.5	- -
Twin Lakes Tunnel	6K3	3/30	22	6.8	17.6	11.6
Westcliffe	5L2	3/30	0	0.0	11.4	5.2*

RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1948-62
Adobe Creek	61.6	56.0	0	13.7
Clear Creek	11.4	11.2	9.6	6.2
Cucharas	40.0	0	0	5.5
Great Plains	150.0	128.6	0	46.5
Horse Creek	26.9	22.5	0	5.9
John Martin	366.6	374.5	3.6	85.0
Meredith	41.9	25.7	0	11.6
Model	15.0	3.7	0	2.5
Sugar Loaf	17.4	14.4	5.2	7.5
Twin Lakes	57.9	52.7	11.4	19.5

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Garfield	3/30	6.7	5.3	NS	3.1
King	3/30	3.3	2.6		1.6
LaVeta Pass	NS	11.9		4.0	10.0
Leadville	3/31	7.8	5.0	5.6	3.1
Twin Lakes Tunnel	3/31	4.5	3.2	3.3	2.5

ALL PROFILES 4 FEET DEEP

NOTE: * - 1948-62 (adjusted averages)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT DRAINAGE

This Report Prepared by
Jack N. Washichek and
Don W. McAndrew
Soil Conservation Service
Colorado State University
Fort Collins, Colorado

STREAMFLOW FORECAST (1,000 AC. FT.)

APRIL THROUGH SEPTEMBER

STREAM AND STATION	FORECAST		THIS YEAR AVERAGE 1948-62
	APRIL - SEPT.	% AVERAGE	
Arkansas at Pueblo (4)	150	46	323
Arkansas at Salida (4)	160	46	345
Cucharas near LaVeta	13	93	14
Purgatoire at Trinidad	30	67	45

- (4) Observed flow plus change in storage in Clear Creek, Twin Lakes, and Sugar Loaf Reservoirs minus diversions through Busk-Ivanhoe and Twin Lake Tunnels and Ewing, Fremont Pass, Wurtz and Columbine Ditches.

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UNITED STATES

DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
Colorado State University
Fort Collins, Colorado

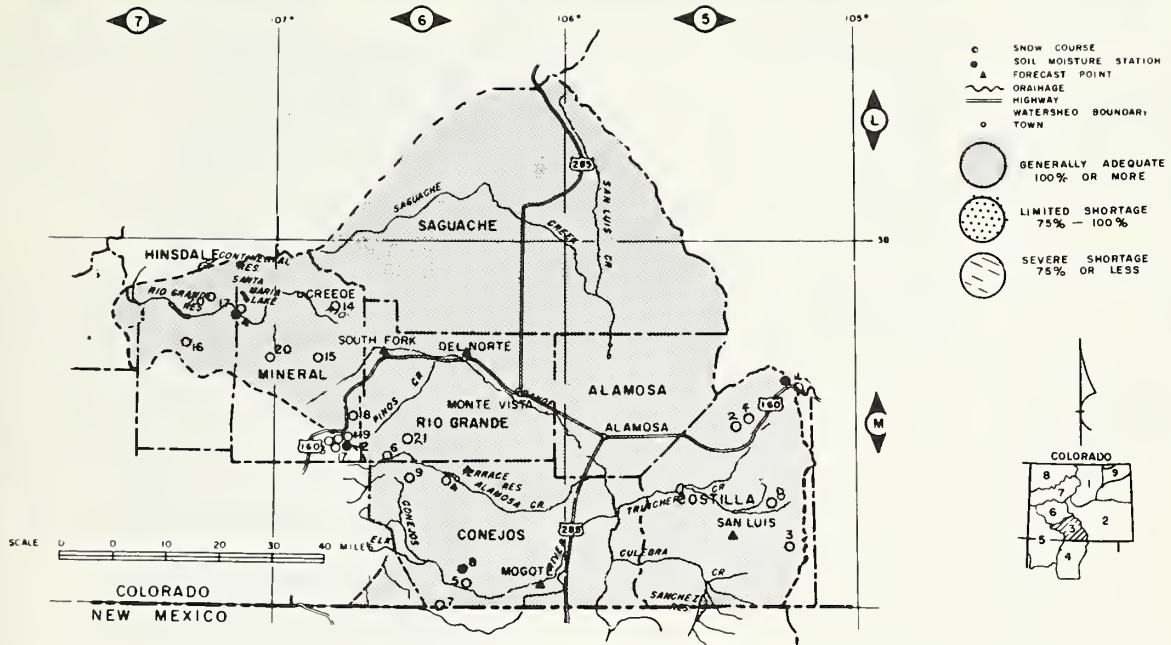
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WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
UPPER RIO GRANDE WATERSHED IN COLORADO
as of

April 1, 1966

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



March snowfall was practically non-existent. After February 1st snow survey it looked like the Rio Grande would have an abundant of water this summer. Now, after March surveys the picture has changed materially. This area still has more snow than any other area in Colorado, but the snow pack has dropped below normal in most areas. Fortunately the reservoir carry-over storage is good, so the overall picture is a little brighter. If April snowfall is below normal, this area, like the rest of the State, will have less than normal streamflow this summer.

Mountain soils are generally wetter than normal and should help increase summer flows.

Some melting has started at the lower elevations due to the unseasonably high temperatures. This water is going to fill the soil moisture void and little is running off as yet.

Forecasts range from a high of 103% on Alamosa to a low of 92% on the Conejos, South Fork, and Rio Grande at Del Norte.

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

Robert K. Griffin, Area Conservationist,
Durango, Colorado

SNOW

SNOW		CURRENT INFORMATION			PAST RECORD	
SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
					LAST YEAR	AVERAGE 1948-62
<u>Rio Grande in Colorado</u>						
Cochetopa Pass	6L6	2/23	18	3.1	8.4	5.5*
Hiway	6M19	3/30	63	25.6	39.9	26.0*
Lake Humphreys	6M15	3/29	19	5.2	13.4	5.7*
Pass Creek	6M18	3/30	29	11.4	20.2	11.0*
Pool Table	6M14	3/29	20	4.4	11.3	6.5*
Porcupine	6M20	3/30	33	5.3	16.1	11.4*
Red Mountain Pass (B)	7M15	3/30	68	25.7	37.6	33.3*
Santa Maria	7M17	3/29	13	3.0	9.4	4.7
Upper Rio Grande	7M16	3/27	23	6.8	13.5	8.0
Wolf Creek Pass	6M1	3/30	61	26.3	44.2	30.6
Wolf Creek Summit (B)	6M17	3/30	79	33.5	46.0	30.0
<u>Alamosa River</u>						
Silver Lakes	6M4	3/31	10	3.2	11.8	6.3
Summitville	6M6	3/28	62	19.2	27.7	20.6
<u>Conejos River</u>						
Cumbres Pass	6M7	3/29	46	21.4	28.4	19.0
Platoro	6M9	EST	50	16.5	27.8	18.8*
River Springs	6M5	3/30	6	1.7	10.0	6.7
<u>Sangre De Cristo Range</u>						
Blue Lakes (B)	6M6	3/28	0	0.0	5.4	- -
Cucharas Pass (B)	5M7	3/28	10	3.4	9.4	- -
Culebra	6M3	3/30	30	10.3	11.3	10.0
LaVeta Pass	5M1	3/28	18	5.6	13.4	8.3

NOTE: * - 1948-62 (adjusted averages)
 NS - NO SURVEY
 (A) - AIR OBSERVED
 (B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and
 Don W. McAndrew
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 Colorado State University
 Fort Collins, Colorado

RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1948-62
Continental	26.7	9.4	2.1	6.1
Platoro	60.0	17.3	2.7	4.6
Rio Grande	45.8	37.4	7.0	14.3
Sanchez	103.2	15.2	5.3	10.7
Santa Maria	45.0	18.2	3.2	7.1
Terrace	17.7	10.8	3.4	3.3

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alberta Park	NS	8.2		NS	4.3
Bristol View	NS	6.1		2.4	3.4
LaVeta Pass	NS	11.9		4.0	10.0
Mogote	NS	10.7		4.6	6.1

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	APRIL THROUGH SEPTEMBER		THIS YEAR % AVERAGE	1948-62
	FORECAST	APRIL - SEPT.		
Alamosa above Terrace	70	103		68
Conejos near Mogote	180	92		196
Culebra at San Luis (6)	23	109		21
Rio Grande at 30 Mile Bridge (5)	128	97		132
Rio Grande nr Del Norte (5)	455	92		492
South Fork at South Fork	112	92		122

- (5) Observed flow plus change in storage in Santa Maria, Rio Grande and Continental Reservoir.
 (6) Observed flow plus changes in storage in Sanchez Reservoir.

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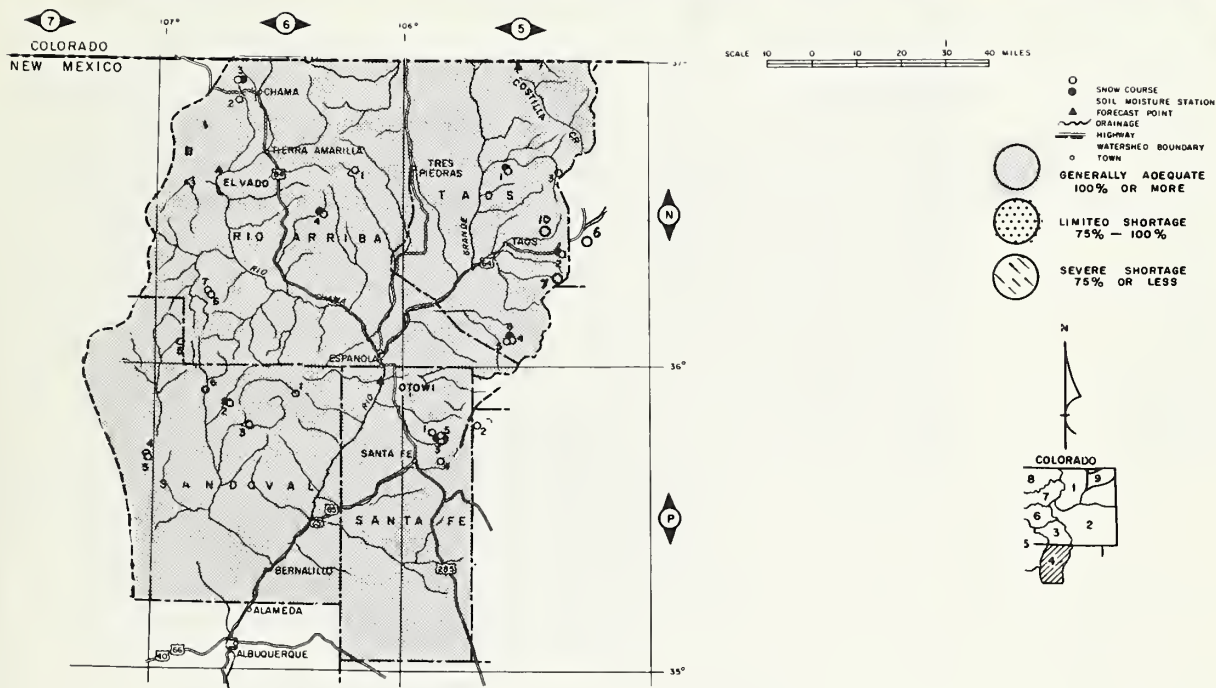
WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE

WATERSHED IV

RIO GRANDE WATERSHED IN NEW MEXICO

as of
April 1, 1966

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



Lack of March snowfall, has dealt a serious blow to the outlook for summer streamflow on the Rio Grande. Snow over the entire basin is now only 80% of normal. Last month it was measured at 114% of normal. March snowfall was one of the lowest on record. Snowfall in the headwaters area is in slightly better shape, but still not up to normal. Much of the low elevation snow is completely gone. Melting snow has not raised the level of the rivers as yet.

Carry-over storage is much better than last year at this time and this will help supply some of the demands this summer. Soil moisture is generally better than normal, which also will help somewhat to increase summer flows. Valley soils are reported to be in fair condition in the Upper Rio Grande Basin and poor over the rest of the drainage.

We must have above average snowfall during April in order to have average streamflows this summer.

Forecasts range from a high of 113% on the Pecos to low of 80% on the Costilla.

“THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY”

Issued By: Soil Conservation Service

Einar L. Roget, State Conservationist,
Albuquerque, New Mexico

Walter B. Rumsey, Area Conservationist,
Santa Fe, New Mexico

SNOW

SNOW COURSE	NO.	CURRENT INFORMATION			PAST RECORD	
		DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
					LAST YEAR	AVERAGE 1948-52
Rio Grande (Colorado)						
Culebra	6M3	3/30	30	10.3	11.3	10.0
Cumbres Pass	6M7	3/29	46	21.4	28.4	19.0
LaVeta Pass	5M1	3/28	18	5.6	13.4	8.3
Platoro	6M9	EST	50	16.5	27.8	18.8*
River Springs	6M5	3/30	6	1.7	10.0	6.7
Santa Maria	7M17	3/29	13	3.0	9.4	4.7
Silver Lakes	6M4	3/31	10	3.2	11.8	6.3
Summitville	6M6	3/28	62	19.2	27.7	20.6
Upper Rio Grande	7M16	3/27	23	6.8	13.5	8.0
Wolf Creek Pass	6M1	3/30	61	26.3	44.2	30.6
Aspen Grove (New Mexico)	5P1	3/30	7	2.0	6.4	3.2
Bateman	6N4	3/25	34	10.2	-	11.6
Big Tesuque	5P3	3/30	6	2.1	8.5	4.3
Blue Bird Mesa	6P6	3/28	8	2.3	9.0	-
Capuline Peak	6N6	3/28	1	0.3	7.8	-
Chama Divide	6N2	3/30	0	0.0	6.3	1.9
Chamita	6N3	3/30	12	5.9	12.7	9.0
Cordova	5N5	3/28	27	8.3	16.4	10.8
Elk Cabin	5P4	3/30	3	1.3	4.2	1.8
Fenton Hill	6P2	3/27	8	2.6	7.0	2.9*
Hematite Park	5N3	3/29	10	3.4	6.4	4.1
Mora View	5N7	3/29	0	0.0	5.8	-
Pajarito Peak	6P4	3/28	0	0.0	1.5	-
Panchuela	5P2	3/24	2	0.7	4.8	1.6
Payrole	6N1	3/30	20	5.5	11.6	8.3
Quemazon	6P1	4/1	23	6.4	12.0	7.9*
Red River	5N1	3/29	17	4.7	9.2	6.3
Rio En Medio	5P5	3/30	26	8.9	14.4	5.9*
Sandavol	6P3	3/29	15	4.0	7.7	-
Taos Canyon	5N2	3/30	6	1.1	7.3	4.3
Tres Ritos	5N4	3/29	3	1.0	8.5	4.5
Twinning	5N10	3/30	34	11.1	-	-

NOTE: * - 1948-52 (adjusted averages)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT ORAINAGE

Rio Grande at San Marcial is
Forecast at 61 % of the Elephant
Butte Irrigation District's normal.

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SOIL CONSERVATION SERVICE

Snow Survey
Colorado State University
Fort Collins, Colorado

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This Report Prepared by
Jack N. Washichek and
Don W. McAndrew
Soil Conservation Service
Colorado State University
Fort Collins, Colorado

RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1948-62
Alamogordo	122.1	26.8	1.5	67.2
Caballo	344.0	90.1	22.0	104.7
Conchas	280.3	258.1	3.3	237.6
Elephant Butte	2206.6	495.8	147.1	360.0
El Vado	194.5	2.8	2.6	16.9
McMillan-Avalon	37.0	25.8	18.0	18.3
Red Bluff (Tex)	307.0	51.7	307.0	67.1

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Colorado					
Alberta Park	NS	8.2		NS	4.3
Bristol View	NS	6.1		2.4	3.4
Mogote	NS	10.7		4.6	6.1
New Mexico					
Aqua Piedra	3/30	7.2	5.3	2.7	4.7
Bateman	3/25	6.7	4.8	NS	2.7
Big Tesuque	3/30	3.7	1.9	1.7	2.4
Chamita	3/30	8.0	8.0	5.5	5.4
Fenton Hill	3/27	6.5	6.5	3.7	-
Red Summit	3/29	4.8	1.5	1.6	2.1
Rio En Medio	3/30	3.5	1.6	1.9	1.5
Taos Canyon	2/28	3.3	2.5	2.2	2.9

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	APRIL THROUGH SEPTEMBER		THIS YEAR	AVERAGE
	APRIL - SEPT.	%	AVERAGE	1948-62
Costilla at Costilla (8)	20	80	25	
Pecos at Pecos	60	113	53	
Rio Chama nr La Puente	180	84	214	
Rio Grande at Otowi (7)⊕	640	105	609	
Rio Grande at San Marcial (7)⊕	424	100	424	
Rio Hondo nr Valdez	18	100	18	
Red River at Questa⊕⊗	22	88	25	

(7) Observed flow plus changes in storage in El Vado and Abiquiu Reservoirs.

(8) Observed flow plus changes in storage in Costilla Reservoir.

⊕ Rio Grande at Otowi and Rio Grande at San Marcial, Forecast and Average March - July inclusive.

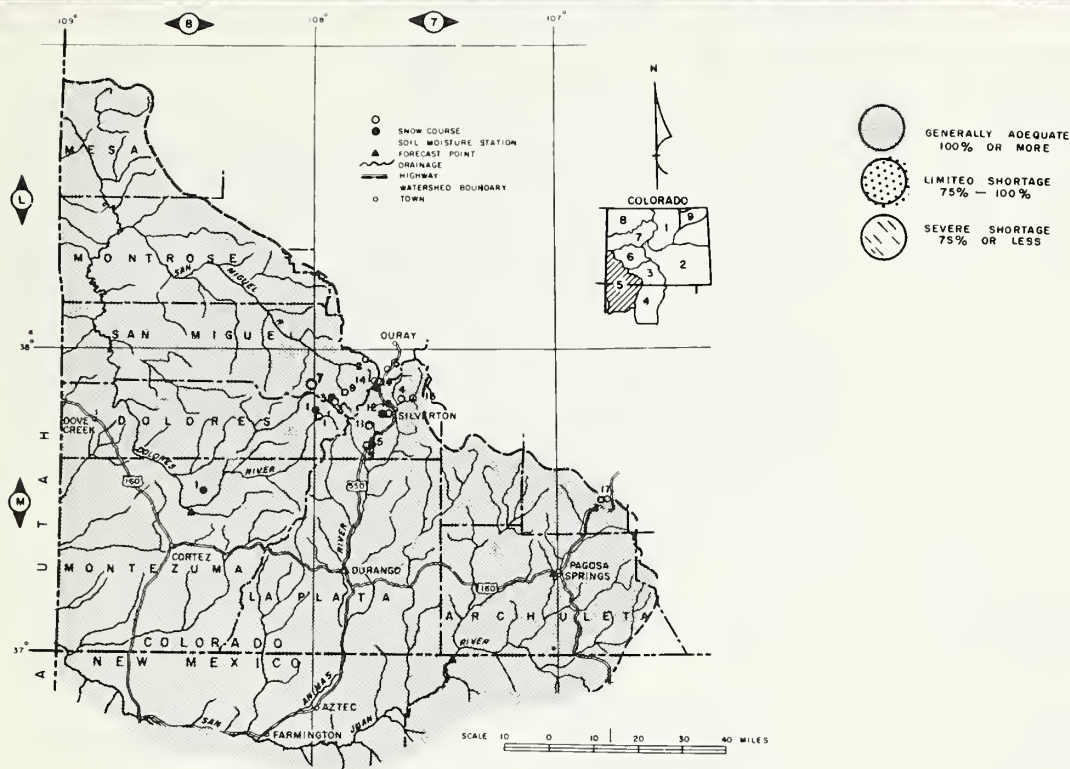
⊗ Red River at Questa Forecast and Average April - July inclusive.

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WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
SAN MIGUEL - DOLORES - ANIMAS - SAN JUAN
WATERSHEDS IN COLORADO AND NEW MEXICO
as of

April 1, 1966

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



Forecasts in this area were reduced materially from last month, however, prospects are still good for at least a normal runoff this summer.

The snow pack over the basin did not increase to any great extent during March. Many of the courses lost water during the month.

Current snow pack is 92% of normal on the San Juan, and 70% of normal on both the Animas and Dolores Watersheds.

Carry-over storage is good, and can supply any extra water needed.

Valley soils in both the Durango and Cortez areas are reported as good.

If April produces at least a normal snowfall there should be adequate water in this area this summer.

'THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY'

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
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Robert K. Griffin, Area Conservationist,
Durango, Colorado

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Albuquerque, New Mexico
Walter B. Rumsey, Area Conservationist,
Santa Fe, New Mexico

Darl Beach, Area Conservationist,
Grand Junction, Colorado

SNOW

SNOW COURSE		NO.	CURRENT INFORMATION			PAST RECORD		
			DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)		
						LAST YEAR	AVERAGE 1948-62	
San Juan River								
Chama Divide	(B)	6N2	3/30	0	0.0	6.3	1.9	
Chamita	(B)	6N3	3/30	12	5.9	12.7	9.0	
Upper San Juan		6M3	3/30	68	31.3	49.8	34.4	
Wolf Creek Pass	(B)	6M1	3/30	61	26.3	44.2	30.6	
Wolf Creek Summit		6M17	3/30	79	33.5	46.0	30.0	
Animas River								
Cascade		7M5	3/30	24	8.2	15.3	12.9	
Howardville		7M13	3/30	32	9.2	15.6	12.3*	
Ironton Park	(B)	7M6	3/30	18	5.2	17.9	13.4	
Mineral Creek		7M14	3/30	38	11.9	21.3	15.7*	
Molas Lake		7M12	3/30	32	10.9	19.6	14.3*	
Red Mountain Pass		6M19	3/30	68	25.7	37.6	33.3*	
Silverton Sub-Station		7M4	3/30	12	3.0	10.0	6.0	
Spud Mountain		7M11	3/30	50	20.4	30.1	26.0*	
Dolores River								
Lizzard Head		7M3	3/30	44	14.4	22.7	18.3	
Rico		7M1	3/30	6	2.9	10.4	7.6	
Telluride		7M2	3/28	11	3.7	10.8	6.7	
Trout Lake		7M9	3/28	36	10.8	19.2	13.6*	

NOTE: * - 1948-62 (adjusted averages)
 NS - NO SURVEY
 (A) - AIR OBSERVED
 (B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and
 Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Fort Collins, Colorado

RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1948-62
Groundhog	21.7	18.7	7.0	6.4
Navajo	1036.0	261.0	251.0	-
Vallecito	126.3	73.8	24.7	45.8

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)	
Cascade	NS	9.1	-	-	6.5	6.7
Dolores (Destroyed)		19.6	-	-	13.5	5.2
Lizzard Head	3/30	11.8	8.0	8.7	6.9	
Mineral Creek	NS	5.7	-	-	4.1	3.3
Molas Lake	NS	9.4	-	-	6.2	3.5
Rico	3/30	13.8	13.6	12.5	6.9	

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	APRIL THROUGH SEPTEMBER		THIS YEAR	AVERAGE
	FORECAST APRIL - SEPT.	%	1948-62	
Animas at Durango	420	92	456	
Dolores at Dolores	220	85	260	
La Plata at Hesperus	26	96	27	
Los Pinos at Bayfield (9)	235	107	220	
Piedra Creek nr Piedra	160	89	182	
San Juan at Rosa (9)	600	101	597	

(9) OBSERVED FLOW PLUS CHANGES IN STORAGE IN VALLECITO RESERVOIR.

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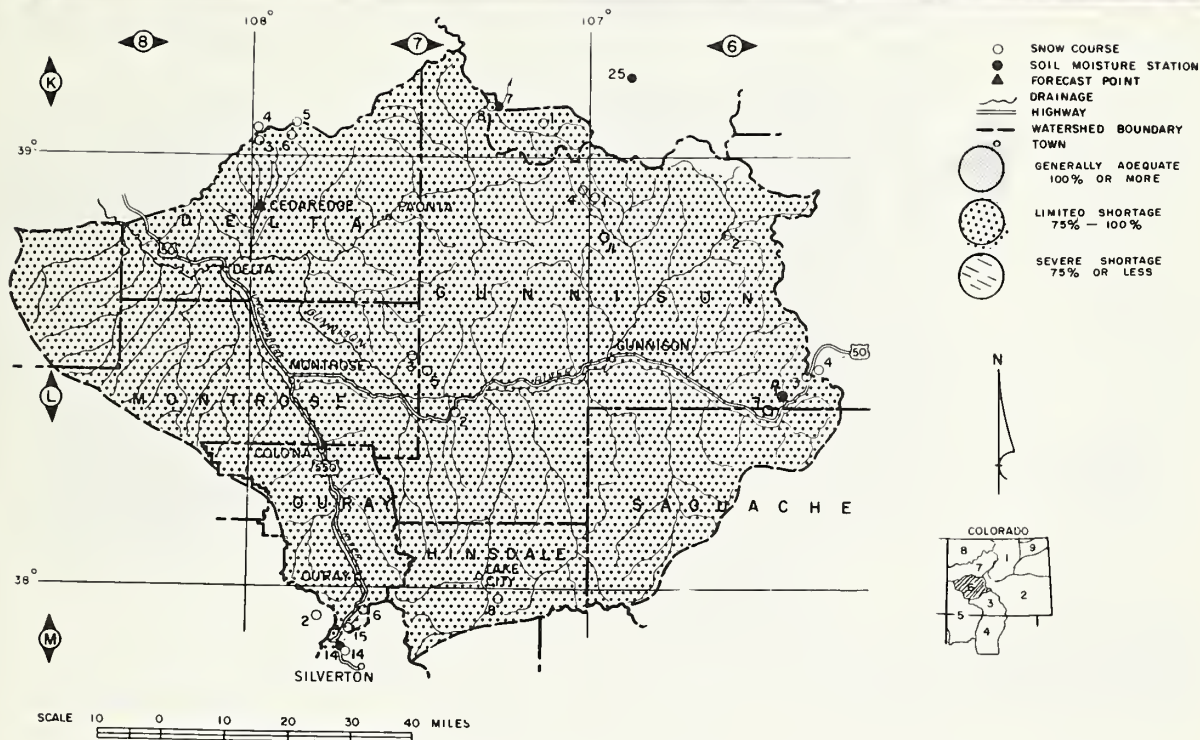
WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE

WATERSHED VI

GUNNISON RIVER WATERSHED IN COLORADO

as of
April 1, 1966

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



Forecasts in the Gunnison Drainage were dropped materially from last month. Most of the snow courses show a loss of water during the month. This indicates practically no snow fell and some was melted or evaporated away. This is a most unusual condition for the high elevation courses. These courses above 10,000 feet of elevation should gain 3 to 5 inches of water instead of losing.

The Uncompahgre Watershed indicated a near normal snow pack last month and now stands at 70% of normal. The Gunnison main stem has 67% of normal snow cover.

Storage in Taylor Reservoir is 82,000 acre-feet.

Soils in the mountains are slightly wetter than usual while the valley soils are reported in fair condition.

Forecasts range from a low of 64% of normal on the Uncompahgre to 71% of normal on Surface Creek.

“THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY”

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

Dearl Beach, Area Conservationist,
Grand Junction, Colorado

SNOW

SNOW		CURRENT INFORMATION			PAST RECORD	
SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
					LAST YEAR	AVERAGE 1948-62
<u>Gunnison River</u>						
Alexander Lakes	7K3	3/29	57	20.5	24.9	23.8
Black Mesa	7L5	NS			19.6	-
Blue Mesa	7L2	3/30	22	4.9	9.7	9.8*
Butte	6L11	3/28	39	11.2	25.3	-
Cochetopa Pass	6L6	3/23	18	3.1	8.4	5.5*
Crested Butte	6L1	3/28	33	8.5	21.9	15.0
Keystone	7L3	3/28	43	13.9	31.1	-
Lake City	7M8	3/29	22	4.0	11.1	8.6
Long Gulch	7L4	NS			12.4	-
Mesa Lakes (B)	7K4	3/29	43	14.3	20.8	18.5
Monarch Pass (B)	6L4	3/30	27	7.7	24.5	19.6
McClure Pass	7K8	3/26	33	10.4	20.6	16.4*
Mineral Creek (B)	7M14	3/30	38	11.9	21.3	15.7*
North Lost Trail (B)	7K1	3/26	26	9.5	23.7	15.7
Park Cone	6L2	3/28	30	6.9	17.5	12.5
Park Reservoir	7K6	3/29	62	21.3	26.5	27.1
Porphyry Creek	6L3	3/30	36	10.5	23.7	18.0
Tomichi	6L7	3/30	20	6.9	20.5	-
Trickle Divide (B)	7K5	3/29	64	23.7	28.2	28.9
<u>Uncompahgre River</u>						
Ironton Park	7M6	3/30	18	5.2	17.9	13.4
Lizzard Head	7M3	3/30	44	14.4	22.7	18.3
Lone Cone	7M7	3/29	39	12.8	18.8	-
Red Mountain Pass (B)	7M15	3/30	68	25.7	37.6	33.3*
Telluride	7M2	3/28	11	3.7	10.8	6.7
Trout Lake	7M9	3/28	36	10.8	19.2	13.6*

NOTE: * - 1948-62 (adjusted averages)

NS - NO SURVEY

(A) - AIR OBSERVED

(B) - ON ADJACENT ORAINAGE

RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1948-62
Taylor	106.2	82.0	74.6	58.3

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Grand Mesa	3/29	12.5	12.5	6.6	-
King	3/30	3.3	2.6	2.6	1.6
Mineral Creek	NS	5.7		4.1	3.3
Placita	3/29	9.3	8.1	5.3	6.7

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	APRIL THROUGH SEPTEMBER		
	FORECAST APRIL - SEPT.	THIS YEAR	AVERAGE
		%	1948-62
Gunnison nr Grand Jct.	900	69	1305
Surface Creek nr Cedaridge	12	71	17
Uncompahgre at Colona	89	64	139

This Report Prepared by
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SOIL CONSERVATION SERVICE

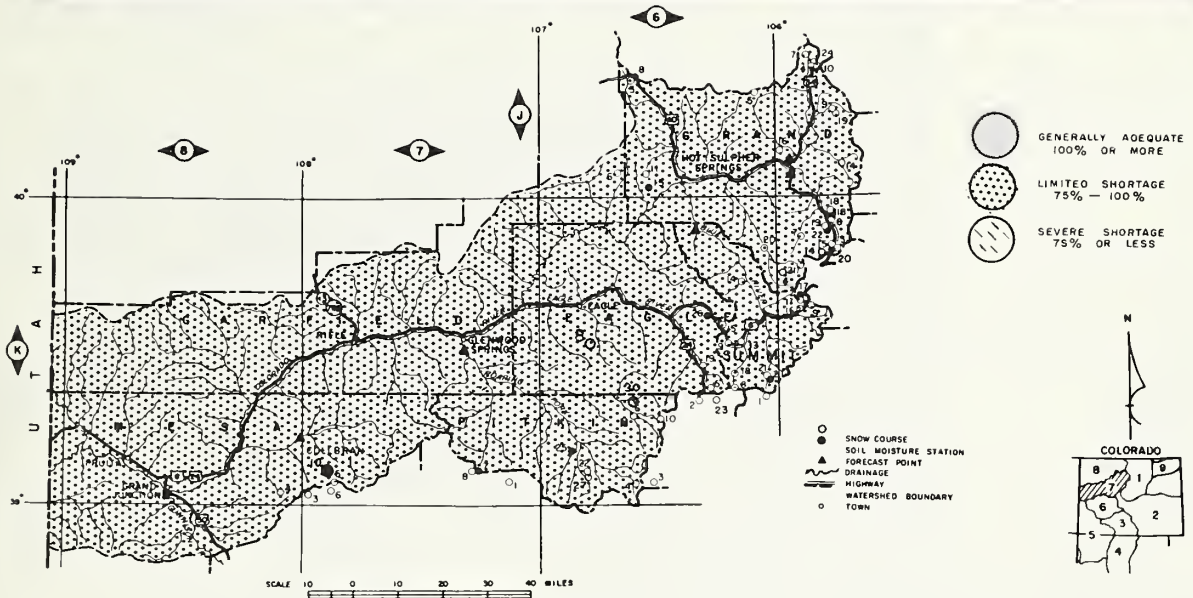
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WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
COLORADO RIVER WATERSHED IN COLORADO
as of
April 1, 1966

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



Outlook for water supplies were dimmed during March. Forecasts were dropped as much as 25% on some rivers. Snowfall was almost non-existent over the basin during the month. There was less snow fell during this March than any other March in the last 15 years. Many of the high elevation courses that normally increase as much as four inches of water, actually lost water during the month.

Soil moisture at the high elevations is better than average, but will not make up for the deficient snowfall.

Valley soils are in fair condition.

Forecasts are mostly in the middle range or 50 to 60%. The highest forecast in the area is the Roaring Fork which is being forecast at 73% of the 15 year average.

Forecasts are based on normal precipitation for the remainder of the year. Even if we have substantially above normal snowfall during April, we will have reduced summer flows.

“THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY”

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

Dearl Beach, Area Conservationist,
Grand Junction, Colorado

J. L. Hall, Area Conservationist,
Glenwood Springs, Colorado

SNOW

SNOW		CURRENT INFORMATION			PAST RECORD	
SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
					LAST YEAR	AVERAGE 1948-52
Colorado River						
Arrow	5K6	3/30	29	7.5	16.6	12.5
Berthoud Pass	5K3	3/30	37	9.8	20.2	15.7
Berthoud Summit	5K14	4/1	43	13.7	23.8	20.4*
Blue River	6K21	3/30	7	1.5	15.6	9.7*
Cooper Hill	6K23	3/27	33	6.5	12.6	-
Fiddlers Gulch	6K5	3/30	37	6.6	19.0	17.9
Fremont Pass	6K8	3/31	35	9.7	20.9	17.7
Frisco	6N3	4/1	12	3.3	8.6*	-
Glen Mar Ranch	6K20	3/29	14	4.7	12.4	8.7
Gore Pass	6J11	3/28	17	4.3	16.0	10.9*
Granby	5J16	3/29	21	4.1	6.1	7.9*
Grand Lake	5J19	3/27	25	5.9	13.5	9.0*
Grizzly Peak	5K9	3/31	39	10.5	27.4	19.2
Hoosier Pass	6K1	3/30	25	5.3	20.4	14.2
Jones Pass	5K21	3/30	36	9.5	18.2	15.3*
Lake Irene	5J10	3/28	46	10.9	27.1	23.7
Lapland	5K9	3/30	16	4.1	16.1	12.0
Lulu	5J7	3/27	39	10.6	21.7	18.2
Lynx Pass	6J6	3/28	26	6.9	16.3	13.0
McKinzie Gulch	6K28	3/23	15	3.4	9.5	-
Middle Fork Campground	5K4	3/29	25	6.4	14.4	9.8
Milner	5J24	3/28	32	8.3	18.4	12.4*
Monarch Lake	5J14	3/29	21	3.8	13.6	11.0
North Inlet to Grand Lake	5J9	3/23	24	4.6	14.3	10.0
Pando	6K19	3/31	22	6.6	14.0	11.6*
Phantom Valley	5J4	3/28	26	5.6	16.4	11.5
Ranch Creek	5K18	3/30	22	5.6	12.9	9.8*
Shrine Pass	6K9	4/1	39	10.3	24.2	18.7
Snake River	5K16	3/31	8	2.4	14.3	9.2*
Summit Ranch	6K14	3/30	19	3.8	13.7	8.8*
Tennessee Pass	6K2	3/30	30	6.0	16.5	10.9
Vail Pass	6K15	4/1	28	7.5	26.7	19.2*
Vasquez Creek	5K19	3/30	31	7.8	15.7	13.4
Willow Creek Pass	6J5	3/29	34	8.4	14.5	14.3
Roaring Fork River						
Aspen	7J22	3/30	29	7.5	25.1	-
Independence Pass Tunnel	6K4	3/30	40	11.5	25.6	18.7
Ivanhoe	6K10	3/29	44	12.0	20.0	18.8
Kiln		3/28	26	7.4		
Lift	7K27	3/28	43	12.9	29.9	18.8*
McClure Pass	7K8	3/26	33	10.4	20.6	16.4*
Nast	6K6	3/24	17	3.0	11.1	6.3
North Lost Trail	7K1	3/26	26	9.5	23.7	15.7
Plateau Creek						
Alexander Lake	7K3	3/29	57	20.5	24.9	23.8
Mesa Lakes	7K4	3/29	43	14.3	20.8	18.5
Park Reservoir	7K6	3/29	62	21.3	26.5	27.1
Trickle Divide	7K5	3/29	64	23.7	28.2	28.9
This Report Prepared by						

This Report Prepared by
 Jack N. Washichek and
 Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Fort Collins, Colorado

NOTE: * - 1948-62 (adjusted averages)
 NS - NO SURVEY
 (A) - AIR OBSERVED
 (B) - ON ADJACENT DRAINAGE

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DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

Snow Survey
 Colorado State University
 Fort Collins, Colorado

OFFICIAL BUSINESS

RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1948-62
Granby	465.5	216.1	45.4	187.5
Green Mountain	146.9	63.4	61.1	58.9
Vega	32.9	21.8	5.8	-
Williams Fork	96.8	13.6	15.8	-
Dillon	254.0	243.6		

SOIL MOISTURE

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Berthoud Pass	3/28	3.9	3.4	2.5	2.4
Blue River	3/30	4.2	3.0	2.4	2.4
Gore	3/30	4.9	3.5	2.3	2.7
Grand Mesa	3/29	12.5	12.5	6.6	-
Muddy Pass	3/29	11.1	7.7	7.9	6.5
Placita	3/29	9.3	8.1	5.3	6.7
Ranch Creek	3/30	8.7	5.9	5.0	5.3
Vail	4/1	12.3	8.0	NS	8.9
Vasquez Siphon	3/26	11.0	7.5	6.9	7.9

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	FORECAST		THIS YEAR AVERAGE
	APRIL - SEPT.	% AVERAGE	
Blue River abv Green Mt. (10)	150	55	274
Colo. River nr Granby (11)	142	61	233
Colo. River abv Glenwood Springs (12)	1000	64	1556
Roaring Fork at Glenwood Springs (14)	560	73	762
Williams Fork nr Parshall (15)	40	52	77
Willow abv Willow Cr.	25	52	48
Colo. nr Cameo (12)	1610	73	2213

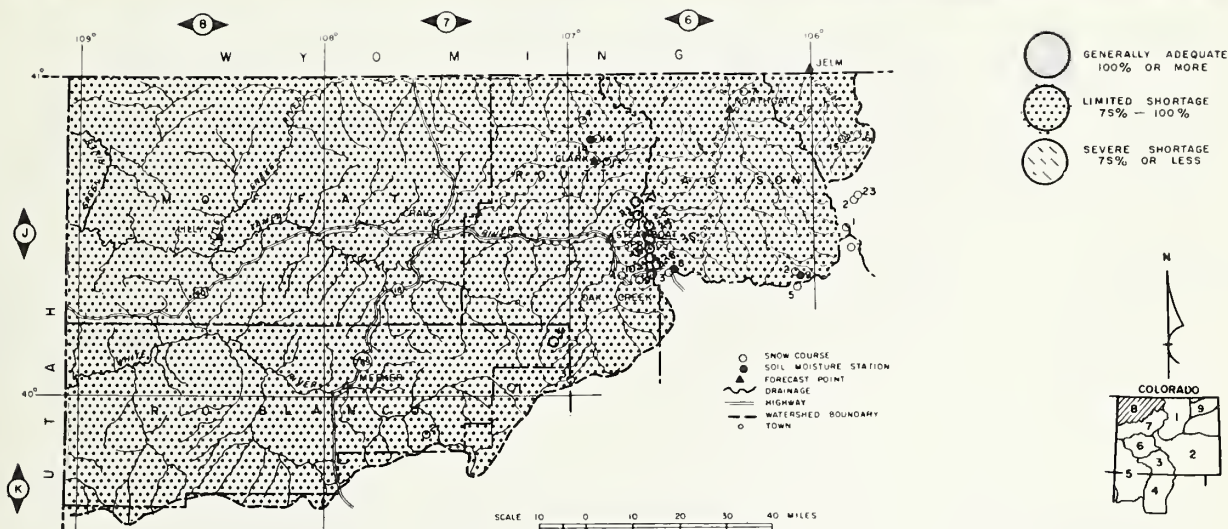
- (10) Observed flow plus change in storage in Dillon Reservoir.
 (11) Observed flow plus diversions by Adams Tunnel and Grand River Ditch plus change in storage in Granby Reservoir.
 (12) Observed flow plus the changes as indicated in (11) plus Moffat Ditch.
 (14) Observed flow plus diversions through Twin Lakes Tunnel.
 (15) Observed flow plus diversions through Jones Pass Tunnel.

POSTAGE AND FEES PAID
 U.S. DEPARTMENT OF AGRICULTURE

WATER SUPPLY OUTLOOK WATERSHED VIII
FOR THE SOIL CONSERVATION DISTRICTS IN THE
**YAMPA, WHITE, AND NORTH PLATTE
RIVERS WATERSHEDS IN COLORADO**

as of
April 1, 1966

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



Most of the low to medium elevation snow courses lost snow during March. This is highly unusual and will lead to very low streamflows this summer. March was not only an extremely low snow month, but temperatures were much above average. Melting has started to occur in many of the medium to low elevation areas. There are no snow courses anywhere near their April 1 normal. Columbine Snow Course as are many others, is recording less snow than any time in recorded history.

Soil moisture is slightly better than average, however, this will not be of much help with the much below normal snow cover.

Forecasts were dropped materially from last month. Unless we get additional snow during April, flows may be the lowest in the last 15 years.

Forecasts range from 33% of normal on the North Platte to 73% of average on the Elk.

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

J. L. Hall, Area Conservationist,
Glenwood Springs, Colorado

SNOW

SNOW		CURRENT INFORMATION			PAST RECORD	
SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
					LAST YEAR	AVERAGE 1948-52
North Platte River						
Cameron Pass	5J1	3/28	55	21.1	27.7	27.4
Columbine Lodge	6J3	3/29	43	13.9	31.3	25.5
Deadman Hill	(B) 5J6	3/28	40	8.0	17.5	17.5
McIntyre	(B) 5J15	3/26	26	5.6	14.4	11.8*
Northgate	6J7	3/30	15	4.4	6.9	6.7*
Park View	6J2	3/29	23	5.6	10.8	10.1
Roach	6J12	3/27	52	13.0	24.9	20.2
Willow Creek Pass	(B) 5J5	3/29	34	8.4	14.5	14.3
Yampa River						
Bear River	7J3	3/28	23	5.7	15.0	11.5*
Clark	6J13	3/29	20	6.3	14.6	- -
Columbine Lodge	(B) 6J3	3/29	43	13.9	31.3	25.5
Dry Lake	6J1	3/31	35	12.2	25.5	21.7
Elk River	6J4	3/29	42	13.5	22.9	18.4
Hahn's Peak	6J14	3/29	35	9.5	17.8	- -
Lynx Pass	(B) 6J6	3/28	26	6.9	16.3	13.0
Rabbit Ears	6J9	3/29	53	19.1	30.8	31.0
Yampa View	6J10	3/29	27	9.2	18.1	15.9*
White River						
Burro Mountain	7K2	3/21	39	11.6	23.2	19.3
Rio Blanco	7J1	3/25	29	12.4	22.9	17.3

NOTE: * - 1948-62 (adjusted averages)
 NS - NO SURVEY
 (A) - AIR OBSERVED
 (B) - ON ADJACENT DRAINAGE

This Report Prepared by
 Jack N. Washichek and
 Don W. McAndrew
 Soil Conservation Service
 Colorado State University
 Fort Collins, Colorado

SOIL MOISTURE

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Hahn's Peak	3/29	19.0	8.6	8.9	- -
Laramie Road	4/2	12.4	8.7	6.8	6.6
Muddy Pass	3/29	11.1	7.7	7.9	6.5
Two Mile	3/23	9.1	4.1	4.6	5.3
Willow Pass	3/29	9.5	8.0	6.2	6.5

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	APRIL THROUGH SEPTEMBER		
	FORECAST APRIL - SEPT.	THIS YEAR % AVERAGE	AVERAGE 1948-62
Elk at Clark	150	73	205
Laramie at Jelm	56	50	112
Little Snake at Lilly	200	62	321
North Platte at Northgate	85	33	258
White at Meeker	210	63	332
Yampa at Maybell	580	63	923
Yampa at Steamboat Spr.	170	58	292

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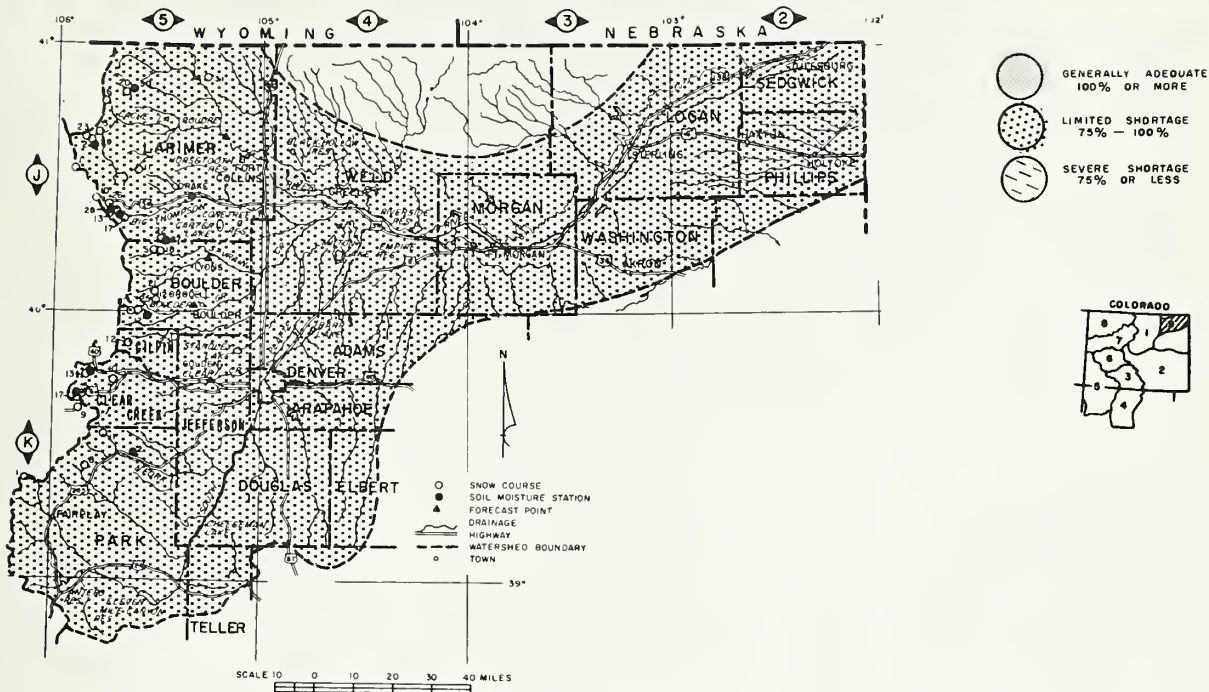
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WATERSHED IX

WATER SUPPLY OUTLOOK
FOR THE SOIL CONSERVATION DISTRICTS IN THE
LOWER SOUTH PLATTE RIVER WATERSHED IN COLORADO
as of
April 1, 1966

U. S. DEPARTMENT OF AGRICULTURE - SOIL CONSERVATION SERVICE
COLORADO EXPERIMENT STATION - STATE ENGINEERS OF COLORADO AND NEW MEXICO



Summer streamflow in the Lower South Platte Valley may approach the minimum of record unless April snowfall is much above normal. Snow pack on the tributary streams is only running about 50% of normal for this time of year:

Fortunately the reservoir carry-over storage is excellent. Current storage is 114% of the 15 year average. Water users served by one of the reservoir systems may have adequate supplies, while those people dependent upon river flows will have severe shortages.

Valley soils are in fair condition for this time of year according to reports from that area.

"THE CONSERVATION OF WATER BEGINS WITH THE SNOW SURVEY"

Issued By: Soil Conservation Service

F. A. Mark, State Conservationist,
Colorado

Wallace L. Bruce, Area Conservationist
Sterling, Colorado

SNOW

SNOW		CURRENT INFORMATION			PAST RECORD	
SNOW COURSE	NO.	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
					LAST YEAR	AVERAGE 1948-62
South Platte River & Tributaries						
Baltimore	5K23	4/1	0	0.0	9.0	-
Berthoud Falls	5K13	4/1	21	5.6	20.0	14.5*
Big South	5J3	4/2	0	0.0	4.1	2.9
Boulder Falls	5J25	3/30	20	6.0	20.3	15.1*
Cameron Pass	5J1	3/28	55	21.1	27.7	27.4
Chambers Lake	5J2	4/2	6	1.7	15.4	9.7
Copeland Lake	5J18	3/29	2	0.4	10.0	5.3*
Deadman Hill	5J6	3/28	40	8.0	17.5	17.5
Deer Ridge	5J17	3/30	3	1.0	8.6	5.9*
Empire	5K10	4/1	15	2.6	11.1	8.1*
Geneva Park	5K11	3/31	1	0.5	8.5	4.1*
Grizzly Peak	5K9	3/31	39	10.5	27.4	19.2
Hidden Valley	5J13	3/30	23	6.5	13.8	12.7
Hoosier Pass	6K1	3/30	25	5.3	20.4	14.2
Hour Glass Lake	5J11	3/30	11	2.7	10.2	8.6
Jefferson Creek	5K8	3/31	15	3.0	13.8	10.4*
Lake Irene	5J10	3/28	46	10.9	27.1	23.7
Long's Peak	5J22	4/3	23	5.5	17.8	12.5*
Lost Lake	5J23	4/2	14	4.6	15.1	13.0
Loveland Lift No. 1	5K24	3/31	52	15.7	32.9	-
Loveland Pass	5K5	3/31	23	6.3	19.9	16.7
Pine Creek	5J31	3/28	1	0.2	3.3	-
Red Feather	5J10	3/28	11	3.1	7.5	8.8*
Two Mile	5J26	3/30	32	9.5	18.0	16.4*
University Camp	5J8	3/30	27	9.9	27.7	24.4
Ward	5J21	3/29	6	2.9	10.1	7.2*
Wild Basin	5J5	3/29	22	5.8	17.2	14.7

RESERVOIR STORAGE (1,000 AC. FT.)

RESERVOIR	USABLE CAPACITY	THIS YEAR	LAST YEAR	15 YEAR AVERAGE 1948-62
Carter	108.9	107.7	93.8	74.2
Cheeseman	79.0	79.2	24.2	52.1
Eleven Mile	81.9	89.6	27.7	74.2
Empire	37.7	34.1	25.2	28.2
Horsetooth	143.5	112.9	94.7	77.7
Jackson	35.4	34.4	34.2	33.5
Julesburg	28.2	22.8	22.7	21.1
Point of Rocks	70.0	69.8	42.3	59.0
Prewitt	32.8	27.5	0	20.8
Riverside	57.5	54.3	53.9	49.0

MEASURED FIRST OF MONTH

MEASURED FIRST OF MONTH

SOIL MOISTURE

STATION	DATE OF SURVEY	CAPACITY (INCHES)	THIS YEAR	LAST YEAR	AVERAGE (ALL PAST DATA)
Alpine Camp	3/23	6.9	3.6	3.1	3.5
Beaver Dam	3/23	7.3	2.8	3.1	3.4
Clear Creek	3/31	9.5	5.4	4.8	5.3
Feather	3/7	10.1	4.0	3.9	4.1
Guard Station	4/3	6.9	3.9	2.9	3.5
Hoop Creek	3/28	4.9	3.4	2.6	2.4
Hoosier Pass	3/30	7.8	4.4	NS	4.2
Kenosha Pass	3/31	4.4	2.3	1.9	1.9
Laramie Road	4/2	12.4	8.7	6.8	6.6
Two Mile	3/23	9.1	4.1	4.6	5.3

ALL PROFILES 4 FEET DEEP

STREAMFLOW FORECAST (1,000 AC. FT.)

STREAM AND STATION	APRIL THROUGH SEPTEMBER		THIS YEAR % AVERAGE	AVERAGE 1948-62
	FORECAST APRIL - SEPT.	YEAR		
Big Thompson at Drake (2)	60	55	110	
Boulder at Orodell	35	65	54	
Cache La Poudre at Canon Mouth (1)	120	49	246	
Clear Creek at Golden (3)	77	57	134	
Saint Vrain at Lyons	37	46	80	

NOTE: * - 1948-62 (adjusted averages)
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This Report Prepared by
Jack N. Washichek and
Don W. McAndrew
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Colorado State University
Fort Collins, Colorado

- (1) Observed flow minus diversions from Michigan, Colorado and Laramie rivers, plus diversions for irrigation and municipal use above station.
- (2) Observed flow plus by-pass to power plants.
- (3) Observed flow minus diversions through Jones Tunnel.

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Colorado State University
Fort Collins, Colorado

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LIST of COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

STATE

Colorado State Engineer
New Mexico State Engineer
Nebraska State Engineer
Colorado Experiment Station
Rocky Mountain Forest and Range Experiment Station

FEDERAL

Department of Agriculture

Forest Service
Soil Conservation Service

Department of Interior

Bureau of Reclamation
Geological Survey
National Park Service
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Department of Commerce

Weather Bureau

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Atomic Energy Commission

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City of Boulder City of Fort Collins

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Colorado River Water Conservation District

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San Luis Valley Irrigation District
Santa Maria Reservoir Company
Costilla Land Company
Uncompahgre Valley Water Users' Association
Twin Lakes Reservoir and Canal Company
Trinchera Irrigation Co.

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SNOW SURVEY UNIT
AG. ENGINEERING SHOP
COLORADO STATE UNIVERSITY
FORT COLLINS, COLORADO 80521

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